

**Center for Modern Greek Studies  
Greek American Oral History Project  
Transcription**

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**Tape:**

**Subject: Nicholas Petrakis  
Interviewer: Elana Vlahandreas  
Date of Interview: 11/12/2003**

**Transcriber: Amanda Cookson  
Date of Transcription: 7/12/2010**

**I: Interviewer  
N: Nicholas**

*Counter: 000*

I: 2003 this is the Modern Greek Studies Oral History Project for San Francisco State University. I'm the interviewer, Elana Vlahandreas, this is Dr. Nicholas Petrakis. And Dr. Petrakis lives in San Francisco and he is umm date of birth for identification just to get started here is, and please correct me if I, if I'm wrong, I'll, which we had on the telephone, February 6, 1922.

N: Correct.

I: Ok. And he's so kind to invited me to his home so we are here uhh and I said San Francisco and umm we umm have country and place of birth and I guess you can tell me your place of birth.

N: I was born in Iowa, Bancroft, Iowa.

I: Ok.

N: Nine-, 1922.

I: Alright //

N: //We were,

I: //Ok//

N: //they had uhh//

I: //Yeah but uhh, go on, {011} place on the computer. Umm you umm have another country or region of residence and I've got Rome 1963 for a year and London '69 to '70 umm also one year. Is that right?

N: That's correct. Umm for years of sabbatical years.

I: Ohh, lucky.

N: Yep.

I: Ok. Umm you, of course, were born in America so we don't have umm immigration but I guess you could tell us when did your parents umm, where were they born?

N: Uhh they were both born in, in Greece in, down in the Peloponnesus, down, down below Sparta. Southeast of Sparta and they both uhh came from two, two small villages. My father from Sykia and my mother from Kiato {019}. These villages are about 15 miles apart but they never met each other until they met in {020}, Minnesota, years later. <laughing>

I: Wow, ok. Do you know of the date of your father's immigration?

N: Well, it, he came over when he was 15 and he was born in uhh 1893 so it must have been about 1915 or something like that because he umm, yeah, he was, he was, he came over by himself with, without uhh an accompanying senior, although there are other Greeks on the ship that he came over on. And he la-, he landed in New York and uhh he, and I remember he was drafted into World War I uhh in 1918. Of course it was the last year of the war and he, he did though go to France uhh and uhh was slightly uhh gassed and but not harm, not harmfully, enough to impair him at, in any way. And uhh that's how he came to America.

I: Mmm. Uhh if umm came here in 1915 then got drafted in about 1918.

N: He came when he was 15 years old and//

I: //Uh huh//

N: //so//

I: //Oh ok//

N: //you know a few years later he was//

I: <gasping>

N: //draftable.

I: Oh boy.

N: He was living in New York and uhh he was in the Rainbow Division which was sort of a heterogeneous collection, probably like you'd get out of San Francisco or New York City or Chicago where they have many nationalities and so on. And uhh but after that he uhh he moved to uhh when he got out of the army he moved to uhh Gary, Indiana, worked in a steel mills there and uhh after and he left there though and went up to Hibbing, Minnesota which is a, a iron mining area in Northern Minnesota. And he worked there for a while and uhh it was, at that, that time he met my mother, probably around 1920 uhh in, in {040} Minnesota. Now she came over, her brother uhh she's a Boosalis, B-O-O-S-A-L-I-S.

I: K.

N: And the Boosalis family was from {042} my father's family was from Sykia.

I: Mmhmm.

N: And uhh the uhh Boosalis family uhh big family in, in {043} a huge family in {044}. My parents' family in Sykia is not a huge family, they're, he had two, two brothers and a sister//

I: //Uh huh//

N: //and my, on the other hand my mother's family she had uhh nine brothers and uhh she was the, I think the only, the only daughter in the family at that time. And uhh she uhh came <mumbling> Uncle Gus, Gus Boosalis, brought her to {048} Minnesota where he had, he had settled there two years earlier and was gradually bringing people over.

I: Oh yeah.

N: And uhh so she stayed with the Boosalis family probably about four or five years so she came over quite young. She was probably in her early teens when she came in there.

I: Ok.

N: And uhh they arranged, somehow the arrangements were made for, for my mother and father to meet in Minnesota, in {053} cuz, you know, that's how they did when you have a nice, young lady for you and {054} <laughing> Take a look! But anyway they got married and uhh, and uhh then they moved to, he was, he was lookin' around for, to settle down in business and he went to Bancroft, Iowa, he ran a pool hall there for a year or so. But he didn't obviously like that so he moved out of there and moved to uhh La Verne,

Minnesota which uhh {058} which time he was into a, a uhh a restaurant type business uhh in a small café there in that little town. That's about 15 miles uhh east of Sioux Falls, South Dakota, which is the uhh big city in South Dakota. Even then it was only 35,000 people in Sioux Falls but now it's gotta be a 120. But uhh//

I: //Mmhmm.

N: It's, anyway he uhh and then after a few years they moved from there to Sioux Falls where, I really grew up in Sioux Falls that's//

I: //Ok//

N: //what I really remember, I remember very little about La Verne because I must have been only about three or four years old <chuckling>

I: Ok and umm//

N: //at that time//

I: //Dad's restaurant, Greek restaurant question mark? <laughing>

N: No, no, just//

I: //just regular?

N: No, no Greek restaurant, there wasn't any real understanding of Greek cooking at the time. He did the when he, when he, uhh he got into, he put in a one of these re-, grill, rotisserie things with chickens on it, you know, they're all over the place now.

I: Yeah.

N: But at the time that was not even heard of in South Dakota and so he had one in his uhh, in one of, in the restaurant he had. And he was in the restaurant business for a while and then they didn't get al-, he and his partner didn't get along and they split up and he then uhh bought a uhh, a delicatessen type store. He had some, a, a counter and then he'd serve just hot dogs and hamburgers and things like that. And then he had uhh some groceries, some candy and fruit and uhh so that was what he ran for many years. Of course uhh being a boy I had to go to work with him a lot <laughing>

I: Yeah.

N: So I spent a lot of time on weekends uhh in the store, I'd work Saturday nights and uhh, and I worked uhh after school for a couple, for an hour, hour and a half total. We were across from the high school so when those kids came out you had to have a lot of help in the store at that time because they steal you blind, you know? <laughing>

I: <mumbling> when you had one//

N: //well that was probably in the 1930's to//

I: //Oh ok//

N: //uhh mid-30's, yeah.

I: Yeah. There was more need back then. Umm I'm gonna pause for a minute.

<Interview Pauses>

I: Testing again, we're starting again one, two, three, four, just test//

N: //Ok.

I: {083} One, two, three, four.

N: One, two, three, four.

I: Alright Dr. Petrakis then what's, where did you go to high school?

N: Well I went to Washington High School in Sioux Falls, South Dakota. And uhh I wasn't a red hot student at that point but I, I studied some but not uhh, my parents {087} and had much of an education so they didn't really appreciate what I see happening now {088} I think they've gone to the extreme now, you know, people don't let their kids even have any time to do nothing by themselves, you know. But uhh anyway, I, I graduated with about a "B" average probably and uhh I uhh couldn't go to go away to school to college because uhh we, we, we were, you know, that was in the Depression days of post-Depression days in 1935-39. And uhh I went to a local college there called Augustana College, that's a, it was a Lutheran college but uhh it was very good. It was a small college, it's become quite uhh famous now, it got into the one of the, you know, the news {097} U.S. News and World Report is uhh, publishes reviews of colleges and universities and uhh it ranked as one of the best ones in the Midwest. Now at the time I don't think it was but I had a remarkably wonderful professor of Zoology who sort of put a, kept with me, you know, {101} right away until that was my real interest in Biology and uhh and science in general. And uhh I had a nice Chemistry professor there too and uhh I graduated from there although that was, I, I entered in about 1939-40, that year and uhh then the year we were at war and uhh so but we kept on going, I wasn't uhh old enough to be drafted yet at that point, well I was, I was seventeen when I went in there and a year later the war began. But uhh they deferred people at that time and uhh I was interested in the, in, in medicine and uhh, and so I got to my third year in college I guess it was, 3<sup>rd</sup>, I hadn't started the 3<sup>rd</sup> year, half of the, the 3<sup>rd</sup> year, 3<sup>rd</sup> and a half, three and a half years and then, then, then the, then the war came and they had, they suddenly decided they, they had to push everybody faster. So I had to go to medical school but I had to finish the last half of the year in, in one month. So we, we <laughing> we worked

real hard that month, everybody did but uhh I was in that uhh situation. And uhh I went to medical school then at that point and at that point the Navy took over and put all medical students either into the Army or into the Navy. And uhh they paid their tuition, board and room and everything. And uhh of course the implication was this was gonna be a long war and they didn't know when it was gonna end and they were under the, they needed doctors and so that was uhh the whole idea for them. It was called the ASTP for the Army and it was called the B-12 for, for Navy. And uhh Navy had the best deal because they, they didn't bother us they just sent us a check every month, we wore our Navy uniforms like the cadets wore at Annapolis and we looked good, pretty spiffy like officers. The Army had, you know, typical Army uniforms and they had to sleep in barracks and uhh, so they had a tougher time in, in the beginning until the Army learned that you can't control studying by medical students who want to study after 10 o'clock at night, you know, they wanna <laughing> you study very late hours and it kept late, late hours, you're up til one or two in the, at night. And uhh the Army wouldn't let 'em do that for sometime and they had to drill every Saturday and Sunday, the Navy didn't. But that require us to do that either so we had uhh, but anyway medical school. I went to the University of South Dakota had a two year, two years of the medical school at that time, the first two years and then you had to transfer to another medical school that had a four year curriculum and uhh I did pretty well in, in the first two years until I was permitted to apply to uhh some of the better schools. So I applied to Washington University in St. Louis which is one of the top medical schools and I graduated from there in 1946, just when the war ended. <laughing> In fact I, I had one, one quarter left of the senior year and, and we went out of uniform for, for one quarter and then I was out and uhh.

I: Ok. So this means you're, you're honorably discharged from the Navy then?

N: Mmhmm. Well, yes, I was. But I also had a, kind of a commitment at that point because uhh I went to medical school on them, you know, and so I had to serve, serve time, in the Navy. But I didn't do it right away, I st-, I went to Minnes-, Minneapolis and interned at Minneapolis General Hospital. And uhh it was a, the timing was, it was peculiar and so I started a little earlier and then so I ended up getting fifteen months of a internship instead of twelve. And at that point uhh I uhh, I, I then met Pat, Pat was a nurse at the Minneapolis General and uhh.

I: Ok Pat is your wife//

N: //Mmhmm//

I: //and what's Pat's original uhh maiden name?

N: Kelly <laughing>

I: <laughing> Oh and Pat {157} Greek.

N: Yes, you can imagine//

I: <laughing>

N: //that caused a lot of consternation in the, in the family structure. My mother died in 1943 of breast cancer.

I: 19-, Oh, just//

N: //She was a young mother//

I: //before you got out of//

N: //Yeah before I got out of medical school, I was in my 2<sup>nd</sup> year, 1<sup>st</sup> year or 2<sup>nd</sup> year in medical school, 1<sup>st</sup> year and she, she uhh had {156} breast cancer at that point and uhh not much they could about it except x-ray at that time.

I: At that time no umm, at that {158}.

N: But you know, that, anyway, that was a nurse and I knew her pretty well there at, over the year there and uhh so we got married. Of course my father didn't wanna come, he wouldn't come to the wedding <laughing> and uhh the relatives in {162} Minnesota were really up in arms and didn't want it to happen either but uhh he said, "Too bad, you're not getting married, we are." You know, so.

I: How many people at the wedding?

N: Oh a lot of a, a lot of interns and residents. <laughing> That's about it. My brother {165} I have a younger brother who's seven years, six years younger than me. Peter's uhh, he has a Ph.D in Biochemistry and uhh he, he was a, he was there at the wedding, he was the best man.

I: Ok, you've been so influenced from your brother to, to because of you becoming a doctor or what did both of you end up//

N: //Well he started medical school himself and uhh he went one, one uhh semester but he didn't like it. It's wasn't his, his making. He's extremely smart but he felt medicine was he had to learn too much stuff and he just didn't like to do it things that way, he's very independent minded. He's probably more like my father in terms of uhh being optimist and <laughing>. But anyway he uhh, he quit after and decided to go into Biochemistry and he finally got his Ph.D at, at uhh U.C. San Francisco. And uhh.

I: Ok, uhh is that, what city is, is, is that's not where you ended up teaching, is it?

N: No, no, I was, I//

I: //San Francisco State University.

N: No, no I didn't teach there he, he, he taught there briefly a couple courses over there while he was still living near the area. That was some time ago though.

I: Ohh ok you're a professor of medicine, you are retired from the//

N: //Mmhmm, Berkeley, California, San Francisco. That's the U.C.'s Medical Center, medical school it's over on Parnassus//

I: //Oh//

N: //right where//

I: //Oh//

N: //you see the television tower it's on the//

I: //Ok//

N: //north side.

I: Ok. This is just a personal question did your mom's breast cancer influence you to//

N: //Oh//

I: //medical?

N: I wouldn't be surprised at uhh, after I got, after we got married we moved to, the Navy I had to spend two years in the Navy//

I: //Uh huh//

N: //so they sent us to the West Coast and I ended up in Seattle at a naval air station for about three months and there wasn't, there wasn't anything to do there there, you know, had sick call and here I was out of a internship {193}. So I said, "I don't wanna do that." And there was an offer at, if you wanted to come to San Francisco to the Naval Defense, Radiological Defense Laboratory, Hunter's Point. And they were, remember that was the time of the bikini bomb test and all of that in the Pacific and so they had, brought several of the ships they had decontaminated and they weren't radioactive, they cleaned 'em off. But uhh they were studying the influence of radioactivity on experimental animals and that sorta thing. And so I thought well that'd be interesting so I applied for that cuz that was the one thing I wanted to do, research. And uhh so uhh I spent two years there and they sent us, you know, San Francisco, here we were and so.

I: Wow.



N: And uhh then after two years I, I got out and we went back to Minneapolis for a year or two, for a year of medical residency there and, and there wasn't anything going on. By then I was interested in cancer and of course probably influenced by my mother and uhh then I went to uhh, I decided well I wanted to come back, when I was here before and during my Navy time I had met uhh the National Cancer Institute from Bethesda had set up a, he'd cooperative branch with the University of California, San Francisco and San Francisco uhh Health Department at Laguna Honda Hall and we had a research board up there with 15 beds, 20 beds and we had research laboratories on a lower floor. And so we, we were sort of pioneers in trying to find new, working on new drugs for treating cancer of different kinds.

I: You worked on patients//

N: //Mmhmm//

I: //on testing?

N: Hmm?

I: Testing on patients?

N: Well we were using the drugs that had been worked out on animals and we were trying them out on patients that nobody could do anything for at the time we were only getting patients that no one else could offer anything.

I: Ohh.

N: But they had surgery and the cancer had spread and the surgeon can't do anything more, the radiologists would treat where they can but if they couldn't handle it anymore they had, they'd refer them to us if the patients were interested and some were, many of them didn't come to us. But we also treated a lot of the Leukemia's in those days because at that time there was only uhh x-ray and uhh, and radioisotopes but we didn't use isotopes, we were using uhh chemical, new chemicals, new drugs that had come out that uhh were promising and we treated a lot of young children and adults with Leukemia's and Hodgkin's Disease and all of those uhh kinds of uhh illnesses. And uhh we also did other research, related research, I was interested in Hematology and I studied bone marrow and cells, cells from the bone marrow and all of that kind of thing. And uhh we did a lot of clinical research. Well then after four years in 1954 they closed and they opened up a big clinical center in Bethesda, the National Cancer Institute that uhh everybody in a laboratory decided to go back except me, I didn't <laughing> I said, "I wanna stay here, this is, it's the best place to be."

I: Yeah.

N: So we stayed here and uhh I luckily got a job, we had a, they started a Cancer Center up in U.C. San Francisco and I got a job there on a research grant, support. And

after a couple years, yeah, I was offered an assistant professorship in Preventive Medicine. Well I didn't know anything about that but the professor who uhh who offered the thing to me said, "Well you'll learn." And uhh he said, "You can keep on doing your research," which was in cancer and so I was in the Cancer Institute which was uhh people from other departments were in it. And so that was where I give them a lot of the early work I did on, on drugs. And uhh so I, I did that for a number of years, many years, actually and about ten years. And uhh then I gradually I, I, well then I went on sabbatical to, to Italy and I worked on Embryology with a known, a well-known Embryologist there and studying fetal development in, in mice. And uhh worked there and when we came back I uhh didn't have much uhh enthusiasm for working with cancer patients anymore. You know, everybody died, you know, it was a tough//

I: //Well with this research you must have had some success with a part of it, I'm sure//

N: //Oh yeah, well yeah, we had the {259} little kids when you give them some of these, the anitfolic acid drugs uhh, {261} that kind of drug. They got it complete-, many of them completely got the remission without any evidence of Leukemia. But within about six months they all came back.

I: Ohh.

N: At that time. Nowadays, you know, people have stuck at it and stretched this out and now they've gotten in, into adult life and they, they even live {266}, they cured them basically although not one ever really knows because they've got an awful lot of different chemicals and uhh who knows what that'll do to them. But they're even having children now so, but you know it, to me I just couldn't do it anymore so I just had that, decided to be going to Epidemiology. But I'm not a Statistician, I'm not interested in. Epidemiology has to do with the, the, with genetic factors, with the environmental factors, with uhh, with uhh and how they interact produce disease. And so <mumbling> a real, a light open place to pick a niche and it uhh and work on the field you want to and so I, by accident I, I won't go into it it's too complicated to tell you the byways of how I got into that but I ran, I moved into breast cancer and I've been studying umm the last uhh 30 years studying breast, breast fluid. You can get nipple-aspirate fluid using the breast pump like mothers use to empty milk, their breasts. Well you can also use a similar kind of breast pump to aspirate the little bit of fluid from non, non-lactating, non-pregnant women.

I: Ok.

N: So about 50-70% of, depends on other things, of women who will yield fluid from the, from the nipple, their nipples and you can then study the cells, they're like a, like pap smear, {290}, he's actually, he is started uhh doing nipple aspirates in 1958 but I didn't find out about it until 1970 <laughing>. I wasn't paying attention to that at that time I was still on another world. But uhh and nobody seemed to follow that up until some a surgeon in Santa Barbara had {297} up in, in New York and knew of Papanicolaou's

work and he was uhh a, a breast surgeon, focused on that. So he started using that in his practice and I heard about him and I went down to see him and he, he taught me how to do the nipple aspirate and uhh so then I started my own research in that area and we did, we've done that ever since. And uhh we've studied the {303} of cells that are in the breast fluid, we've studied the chemical composition, the hormones and the estrogens and the {305} and you name it the, the, just about anything you look for is in the, in the breast fluid so. And then collecting information on many women and about their, about their characteristics, age of {309} uhh first age of, first pregnancy, number of pregnancies, uhh age of menopause uhh and all sorts of information about their habits and environmental exposures and try and put all these together focusing on the breast fluid which is, mirrors what's going on in the breasts rather than studying blood, which many people were doing at that time, hormones in the blood and so on we were tryin' to study hormones in the breast fluids and//

I: //Uh huh//

N: //other things and see if we could find women who were at higher age, find women who might have breast cancer but we never really did and neither did Papanicolaou, he found an occasional out of a thousand women, 2,000 women he found two or three women that had, actually had breast cancer. But of course you don't know where it's coming from.

I: Ok.

N: It's in that breast but you don't know where, you know, so you don't know what that means back then. But at least you'd be aware of it. But they were also interested in uhh finding women at high risk of breast cancer, rather than the cancer but that's mostly what was mostly had to deal with. We were ended up studying them and going to screening centers like in Oakland. They had this big screening center at the Mary Hospital, breast cancer screening. We had a, a two nurses over there that were in this grant I had which uhh {333} nipple aspirates on about uhh 3,000 women that went through there. And we followed those women now for about 20, an average of 20 years and determined <mumbling> what happened to them and out of that group those that had uhh, what we call "atypical" epithelial cells uhh that group of women that had those type, types of cells have a three to five times increase risk of later developing breast cancer.

I: Mmhmm.

N: And so that, that's, that was a, they're finding out how they work, all the kinds, it was uhh hard to condense uhh the National Cancer Institute that they should keep supporting us.

I: Well you know they gotta sell them chemotherapy <laughing> drugs.

N: <laughing> Well sure they have to do everything and they oughta, they gotta watch their money and now it's getting worse. I'm glad I don't have to compete for grants these days it's terrible.

I: I know, the research is so important and I guess really you're looking for what is in the body but end result//

N: //Well, it's//

I: //end result is to make something for the cure.

N: Well <mumbling> yes, to, to detect people at risk and if you knew what uhh specifically is wrong you may be able to correct it or//

I: //uh huh//

N: //or remove it, you know. Since that time they've developed a device to actually, you can wa-, wash off, you can put a little, tiny catheter into the duct opening that you get the fluid out of with a breast pump and then you can wash out all the secretions of that, that duct and they get a lot of cells and you can//

END OF SIDE A {365}

SIDE B: 000

I: Test one, two, three, four, side two.

N: One, two, three, four.

I: Ok//

N: //Anyway, you can put a little endoscope in there and you can look up the duct and uhh find a area that's abnormal and uhh you, you can even try to do something about it. This is still in development now but it's a, but you can't do this until you get an opening with the nipple fluid, the nipple aspirate fluid so.

I: Ok.

N: Anyway that's what I've spent a good share of my time on.

I: But if you have a million dollars can you find a, a doctor to, that has the equipment to do this wash?

N: Oh there are many doctors doing it now that's uhh being done all over the United States now.

I: {371}